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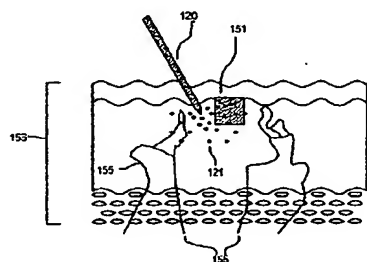
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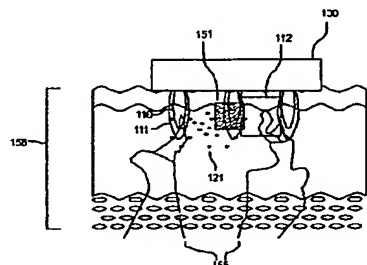
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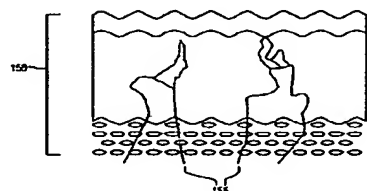
(54) Title: METHODS AND APPARATUS FOR MODULATION OF THE IMMUNE RESPONSE USING LIGHT-BASED
FRACTIONAL TREATMENT



A



B



C

(57) Abstract: The invention describes a method and apparatus (100) for the modulation of an immune response, for the removal of a foreign body (151) in skin or a visceral organ. A fractional phototherapy device (100) is used to produce an acute stimulus for the immune response. The immune response may be enhanced by applying an exogenous substance (121). The immune modulation may be targeted or directed toward the treatment of a particular foreign body through the creation and amplification of particular biological signatures. This invention is particularly appropriate for treatment of skin cancer, autoimmune diseases, inflammatory diseases, and fungi.



FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 607/88,89

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X — Y	US 5,616,140 A (Prescott) 01 April 1997 (01.04.1997), see the entire document.	1-3, 9, 16 and 38 2-15, 17-37 and 39-47
Y,P	US 6,899,723 B2 (Chen) 31 May 2005 (31.05.2005), see the entire document.	2-15, 17-37 and 39-47
Y,P	US 6,811,564 B1 (Strachan) 02.11.2004 (02.11.2004), see the entire document.	2-15, 17-37 and 39-47
Y,P	US 6,805,701 B1 (Cortes) 19 October 2004 (19.10.2004), see the entire document.	2-15, 17-37 and 39-47

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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